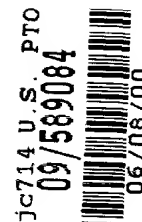
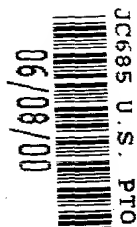


IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

ATTORNEY DOCKET NO. 071671/0153



Applicant: Yoshikazu KOBAYASHI

Title: INTERNET SERVICE TELEPHONE COMMUNICATION CONNECTION METHOD

Appl. No.: Unassigned

Filing Date: 06/08/2000

Examiner: Unassigned

Art Unit: Unassigned

**UTILITY PATENT APPLICATION**  
**TRANSMITTAL**

Assistant Commissioner for Patents  
Box PATENT APPLICATION  
Washington, D.C. 20231

Sir:

Transmitted herewith for filing under 37 C.F.R. § 1.53(b) is the nonprovisional utility patent application of:

Yoshikazu KOBAYASHI

Enclosed are:

- [ X ] Specification, Claim(s), and Abstract (25 pages).
- [ X ] Formal drawings (4 sheets, Figures 1-4).
- [ X ] Declaration and Power of Attorney (2 pages).
- [ X ] Assignment of the invention to NEC CORPORATION.
- [ X ] Assignment Recordation Cover Sheet.
- [ X ] Preliminary Amendment (4 pages).
- [ X ] Claim for Convention Priority and Priority Document/
- [ X ] Information Disclosure Statement.
- [ X ] Form PTO-1449 with copies of 1 listed reference(s).

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Appl. No. Unassigned

The filing fee is calculated below:

|  | Claims<br>as Filed | Included in<br>Basic Fee | Extra<br>Claims | Rate              | Fee<br>Totals |
|--|--------------------|--------------------------|-----------------|-------------------|---------------|
| Basic Fee  |                    |                          |                 | \$690.00          | \$690.00      |
| Total Claims:  | 18                 | - 20                     | = 0             | x \$18.00         | = \$0.00      |
| Independents:  | 6                  | - 3                      | = 3             | x \$78.00         | = \$234.00    |
| If any Multiple Dependent Claim(s) present:          |                    |                          |                 | + \$260.00        | = \$0.00      |
| Assignment Recording Fee per property                |                    |                          |                 | + \$40.00         | = \$40.00     |
|  |                    |                          |                 | SUBTOTAL:         | = \$964.00    |
| [ ] Small Entity Fees Apply (subtract 1/2 of above): |                    |                          |                 |                   | = \$0.00      |
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- [ X ] A check in the amount of \$964.00 to cover the filing fee is enclosed.
- [ ] The required filing fees are not enclosed but will be submitted in response to the Notice to File Missing Parts of Application.
- [ X ] The Assistant Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Assistant Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741.

Please direct all correspondence to the undersigned attorney or agent at the address indicated below.

Respectfully submitted,

June 8, 2000

Date

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|              |  |
|--------------|--|
| Applicant:   | Yoshikazu KOBAYASHI  |
| Title:       | INTERNET SERVICE TELEPHONE COMMUNICATION CONNECTION METHOD |
| Appl. No.:   | Unassigned   |
| Filing Date: | 06/08/2000   |
| Examiner:    | Unassigned   |
| Art Unit:    | Unassigned   |

Assistant Commissioner for Patents  
Washington, D.C. 20231

Prior to examination of the present Application, Applicant respectfully requests that the above-identified application be amended as follows:

Claim 4, lines 1 and 2, delete "one of claims 1 to 3" and insert --claim 1--.

Claim 5, lines 1 and 2, delete "one of claims 1 to 3" and insert --claim 1--.

Claim 6, line 1, delete "one of claims 1-3" and insert --claim 1--.

Claim 7, lines 1 and 2, delete "one of claims 1-3" and insert --claim 1--.

Please add the following new claims:

--11. The telephone communication system according to claim 2, wherein the functions of each telephone set are executed on a personal computer.

12. The telephone communication system according to claim 3, wherein the functions of each telephone set are executed on a personal computer.

13. The telephone communication system according to claim 2, wherein the functions of each telephone set are executed with an IVR (interactive voice response) unit or a facsimile data server or a voice recognition dialer or a voice mail.

14. The telephone communication system according to claim 3, wherein the functions of each telephone set are executed with an IVR (interactive voice response) unit or a facsimile data server or a voice recognition dialer or a voice mail.

15. The telephone set according to claim 2, which comprises:

a ten-key unit having dial keys and a function key for indicating an internet telephone service;

a display unit for displaying a call arrival notification and results of various processes in the telephone set;

an accumulating unit for storing telephone number data and access identifier data of internet connection points to be connected by the calling and called sides;

a voice codec to be started by a command for voice communication in the internet; and

a telephone set control unit for detecting depressed push-buttons in the ten-key unit, obtaining the connection point data from the accumulating unit, sending out dial data and connection point data via the public network, starting the voice codec when the dialed side has been connected to the internet service provider network and, upon arrival of a call, retrieving for the connection point data of the calling side, effecting connection of the own side to the internet service provider network by retrieving and

referring to the accumulating unit according to the connection point data and informing the calling side of connection.

16. The telephone set according to claim 3, which comprises:

a ten-key unit having dial keys and a function key for indicating an internet telephone service;

a display unit for displaying a call arrival notification and results of various processes in the telephone set;

an accumulating unit for storing telephone number data and access identifier data of internet connection points to be connected by the calling and called sides;

a voice codec to be started by a command for voice communication in the internet; and

a telephone set control unit for detecting depressed push-buttons in the ten-key unit, obtaining the connection point data from the accumulating unit, sending out dial data and connection point data via the public network, starting the voice codec when the dialed side has been connected to the internet service provider network and, upon arrival of a call, retrieving for the connection point data of the calling side, effecting connection of the own side to the internet service provider network by retrieving and referring to the accumulating unit according to the connection point data and informing the calling side of connection.

17. The telephone communication system according to claim 2, wherein each telephone set further comprises an encryption unit for permitting exchange of connection point data in terms of ciphers.

18. The telephone communication system according to claim 3, wherein each telephone set further comprises an encryption unit for permitting exchange of connection point data in terms of ciphers.--


REMARKS

Applicant respectfully requests that the foregoing amendments to Claims 4, 5, 6, 7 and new Claims 11 through 18 be entered in order to avoid this application from incurring a surcharge for the presence of one or more multiple dependent claims.

Respectfully submitted,

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INTERNET SERVICE TELEPHONE COMMUNICATION CONNECTION  
METHOD

BACKGROUND OF THE INVENTION

The present invention relates to an internet  
5 communication system or an internet service telephone  
communication method, and more particularly to a  
telephone system through an internet telephone by a  
provider on a calling side.

Japanese Patent Laid-Open No. No. 10-322391  
10 discloses an example of the prior art internet service  
telephone communication connection method. In the  
disclosed communication terminal and communication  
method, when a calling terminal intends to make internet  
service communication, it sends out data including its  
15 own IP address in the internet service network via a  
separate line. A called terminal receiving the data  
including the IP address sent out from the calling  
terminal, connects itself to the internet service  
network, and the calling terminal also connects itself  
20 thereto. Thus, terminal-to-terminal communication is  
made possible.

In the prior art, an internet service telephone set  
is connected to the own access point of its own subscribed  
internet service provider network to obtain the service  
25 with internet service telephone software annexed to a  
personal computer. However, the prior art internet  
service telephone communication has the following  
problems.

In the above prior art example, the internet service providers, which the calling and called sides are subscribers of, are indefinite. Therefore, it is impossible to ensure a sufficient service quality.

5 In order to secure sufficient internet service telephone communication quality, both the calling and called sides may be interconnected via the same internet service provider network. In this case, it is possible to reduce the service quality deterioration due to  
10 different internet service providers. However, where each terminal as opposite side of communication is a subscriber of a peculiar provider, it is necessary to conclude contracts with a plurality of different providers. Consequently, the contract expenditures are  
15 increased. This is undesired from the standpoint of reducing the internet service telephone communication expenditures.

#### SUMMARY OF THE INVENTION

An object of the present invention is to provide  
20 an internet service telephone set capable of providing internet service telephone communication via the same internet service provider network.

According to a first aspect of the present invention, there is provided a telephone communication  
25 system comprising a public network, an internet service provider network and a plurality of telephone sets accommodated in the public network, wherein when a calling telephone set as an internet service provider





provider network and a plurality of telephone sets accommodated in the public network, wherein when a calling telephone set as an internet service provider network subscriber provides connection point data for making internet service telephone communication to a called telephone set via a public network, the called telephone set receiving the connection point data connects itself to an internet service provider network according to the connection point data, and then the calling telephone set connects itself to the internet service provider network, the connection point data including at least an IP address in the internet service provider network and the telephone number of a point to be connected to the internet service provider network, a push-button telephone set having various function keys being provided between each of the plurality of telephone sets and the public network with a function of sending out a call from each telephone set.

The functions of each telephone set are executed on a personal computer. The functions of each telephone set are executed with an IVR (interactive voice response unit or a facsimile data server or a voice recognition dialer or a voice mail.

The telephone set comprises: a ten-key unit having  
25 dial keys and a function key for indicating an internet  
telephone service; a display unit for displaying a call  
arrival notification and results of various processes  
in the telephone set; an accumulating unit for storing

telephone number data and access identifier data of internet connection points to be connected by the calling and called sides; a voice codec to be started by a command for voice communication in the internet; and a telephone set control unit for detecting depressed push-buttons in the ten-key unit, obtaining the connection point data from the accumulating unit, sending out dial data and connection point data via the public network, starting the voice codec when the dialed side has been connected to the internet service provider network and, upon arrival of a call, retrieving for the connection point data of the calling side, effecting connection of the own side to the internet service provider network by retrieving and referring to the accumulating unit according to the connection point data and informing the calling side of the connection.

Each telephone set further comprises an enciphering unit for permitting exchange of connection point data in terms of ciphers.

20           According to a fourth aspect of the present  
invention, there is provided an internet communication  
method comprising steps of: in response to provision,  
by a calling telephone set as an internet service provider  
network subscriber, of connection point data for making  
25 internet service telephone communication to a called  
telephone set via a public network, the called telephone  
set receiving the connection point data connects itself  
to an internet service provider network on the basis of

the connection point data, and then the calling telephone set connects itself to the internet service provider network.

According to a fifth aspect of the present invention, there is provided an internet communication method comprising steps of: in response to provision, by a calling telephone set as an internet service provider network subscriber, of connection point data for making internet service telephone communication to a called telephone set via a public network, the called telephone set receiving the connection point data connects itself to an internet service provider network on the basis of the connection point data, and then the calling telephone set connects itself to the internet service provider network, the connection point data including at least an IP address in the internet service provider network and the telephone number of a point to be connected to the internet service provider network.

According to a sixth aspect of the present invention, there is provided an internet communication method comprising steps of: in response to provision, by a calling telephone set as an internet service provider network subscriber, of connection point data for making internet service telephone communication to a called telephone set via a public network, the called telephone set receiving the connection point data connects itself to an internet service provider network on the basis of the connection point data, and then the calling telephone

set connects itself to the internet service provider network, the connection point data including at least an IP address in the internet service provider network and the telephone number of a point to be connected to the internet service provider network, a push-button telephone set having various function keys being provided between each of the plurality of telephone sets and the public network with a function of sending out a call from each telephone set.

10 In the present invention, in order to guarantee the service quality, an ablet (i.e., execution module having one time log-in identifier, pass word and dial-up and opposite side address data) is provided, which sends out, to the opposite side of communication, a means for  
15 permitting the opposite side to call back in internet service telephone communication to the VPN (virtual private network) of its own subscribed provider.

According to the present invention, in addition to the feature of cheap communication fee of internet  
20 service telephone communication, internet service telephone communication is permitted by guaranteeing the sound quality, i.e., service quality as the service of the VPN of the own subscribed provider.

Other objects and features will be clarified from  
25 the following description with reference to attached drawings.

#### BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a construction of an embodiment of the

telephone communication system according to the present invention;

Fig. 2 is a construction of another embodiment of the telephone communication system according to the present invention;

Fig. 3 is a view showing the realization of the telephone set according to the present invention on a personal computer; and

Fig. 4 is a view showing a telephone set according to the present invention, in which an encryption unit is additionally provided.

## PREFERRED EMBODIMENTS OF THE INVENTION

Preferred embodiments of the present invention will now be described with reference to the drawings.

15           An embodiment of the present invention will now be described with reference to Fig. 1. The Figure shows the construction of the embodiment of the telephone communication system according to the present invention.

As shown in Fig. 1, telephone sets 100 and 120 according to the present invention can make telephone communication via a public line and bypass the line for internet service telephone communication in a simple procedure.

The telephone sets 100 and 120 are connected to lines 110 and 140, respectively, which can be interconnected via a public network 150 or an internet service provider network 160. The public network 150 includes LAN, general public network and mobile

communication network.

The telephone sets 100 and 120 comprise ten-key units 101 and 121, display units 102 and 122, telephone set control units 103 and 123, "H323" voice codecs 104 and 124, accumulating units 105 and 125, line interface units 106 and 126 and data modem units 107 and 127, respectively.

The ten-key units 101 and 121 each have keys of numerals "0" to "9" and marks "\*" and "#" and other function keys, and can notify telephone number and bypassing and also make other notifications. The display units 102 and 122 each can display call arrival notification and results of processing in the own telephone set. The units 101 and 121 each have a bypassing notification push-button 109 for commanding the start of internet service telephone communication.

The telephone set control units 103 and 123 each send out dial data when detecting the depressed push-buttons in each of the ten-key units 101 and 121. When detecting bypassing, the units 103 and 123 each obtain data for bypassing line for internet service from each of the accumulating units 105 and 125, and send out the dial data and connection point data to each of the line interface units 106 and 126. When obtaining caller identifier and subaddress signal from each of the data modem units 107 and 127 upon call arrival, the units 103 and 123 each notify internet telephone call arrival by obtaining the data from each of the accumulating units

105 and 125, and start internet service telephone communication.

Upon receipt of command from each of the telephone set control unit 103 and 123, the "H323" voice codecs 104 and 124 are each started, whereby the lines 110 and 140 are interconnected for internet service voice communication. In the accumulating units 105 and 125, telephone number and access identifier data representing the internet service connection point to be connected by the called side and that to be connected by the calling side are stored, respectively.

The line interface units 106 and 126 each receiving dial data from each of the telephone set control units 103 and 123, make a call to the public network and the internet service provider network via each of the data modem units 107 and 127, and when detecting the call arrival from the public network, they each serve as voice and data communication interface. The units 106 and 126 each transmit subaddress signal, which is obtained by adding caller identifier to internet service connection point data, via each of the data modem units 107 and 127.

The data modem units 107 and 127 each relay communication between the line and each of the line interface units 106 and 126, analyze the caller identifier detected in each of the line interface units 106 and 126, and send out the analyzed caller identifier to each of the telephone set control units 103 and 123.

The operation of this embodiment of the present





interface unit 106 notifies the call arrival and the caller identifier data to the telephone set control unit 103.

5 The telephone set control unit 103 compares the caller identifier received from the line interface unit 106 and the data from the accumulating unit 105 to check whether the numeral figure of a predetermined connection point data format and that of the subaddress signal with the caller identifier are identical. When it is proved  
10 as a result of the check that the two numeral figures are identical, the telephone set control unit 103 causes the accumulating unit 105 to preserve the connection point data and also causes the display unit 105 to display the arrival of the internet service telephone  
15 communication request. The display unit 102 displays the notification of the arrival of the internet service telephone communication request.

In response to the request arrival notification, the called person depresses an internet service  
20 telephone communication start push-button in the ten-key unit 101. Detecting the depression of the internet service telephone communication start push-button in the ten-key unit 101, the telephone set control unit 103 calls out the connection point data, having been sent out from  
25 the calling person side, from the accumulating unit 105, and commands transmission to the dial number in the connection point data, thus effecting connection to the access point line.



include other internet service telephone communication data, such as nickname as the internet service telephone set, main address, IP address and gate keeper data.

Where the telephone number or the like is obvious  
5 and need not be sent out, such data may be left out. Also,  
the caller identifier is by no means limitative as the  
data to be added to the connection point data; for example,  
it is possible to add ISDN D-channel bucket or  
user-to-user data or, in case of "H323" telephone service  
10 defined by ITU-T, add as electronic mail or data terminal  
file.

Furthermore, the present invention is applicable  
not only to the connection to an internet service network  
managed by a provider but also to internet service  
15 telephone sets in self-managing network WAN or  
in-premise AN. The present invention is further  
applicable not only to internet service telephone sets  
but also meeting telephone sets utilizing an internet  
service line or television meeting sets.

20 As has been shown, the telephone sets 100 and 120  
according to the present invention can make internet  
service telephone communication between them with the  
connection of their "H323" codecs 104 and 124 to VPN of  
the internet service provider network 160. That is, the  
25 telephone set 120 (i.e., the calling side) permits  
connection of the telephone set 100 (i.e., the called  
side) having no contract regarding VPN subscribed by it  
thereto by first connecting itself thereto and then

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sending out contract data to the telephone set 100. In this way, the calling and called sides can make mutual internet service telephone communication without contract with any common provider but by utilizing a single provider on a quality-guaranteed internet service line (such as VPN line or Qos guarantee line).

In this way, the present invention permits high speech quality internet service telephone communication. Also, the telephone set according to the present invention can preclude contract expenditure increase due to a plurality of provider contracts effected by a plurality of opposite side telephone sets and burden increase in view of expenditures and operation steps of management and maintenance due to the plurality of contracts.

A different embodiment of the present invention will now be described with reference to Fig. 2. Fig. 2 shows the different embodiment of the telephone set according to the present invention. The preceding embodiment of the telephone set is an internet service telephone set as independent telephone set.

In this embodiment, as shown in Fig. 2, push-button telephone sets 111 and 141 are connected to telephone sets 100 and 120, respectively. The telephone sets 111 and 141 are to be connected via lines 110 and 140, respectively, to a public network 150 and an internet service provider network 160. The telephone sets 111 and 141 are not limited to independent telephone sets or

in-premise switching system terminals; for example, they may be constructed as switching system. Furthermore, the telephone sets 111 and 141 are not limited to analog telephone sets; for example, they may be ITU-T "H323" terminals, ISDN terminals, telephone sets for cable modems and so forth.

Figs. 3 and 4 will now be referred to. Fig. 3 is a view showing the realization of the telephone set according to the present invention on a personal computer. Fig. 4 is a view showing a telephone set according to the present invention, in which an encryption unit is additionally provided.

The telephone set according to the present invention is not limited to an exclusive communication unit. As shown in Fig. 3, it is possible to realize as the telephone set on a personal computer. In Fig. 3, it is shown that it is displayed on a personal computer display screen that connection point data has been received. The user of the personal computer realizes the internet service telephone set with a microphone 171 and a loud-speaker 172 of a PC unit 170 by selecting icon with a mouse and dialing up the designated access point. The icon on the personal computer may be displayed in a browser in a receiving side personal computer, or it may be on a transmitting side web page.

The data on the web may not only be mere dial data of the access point and identifier for verification, but may also be data of ablet type (i.e., execution type)

such as JAVA applet accompanied by a telephone call  
producing operation. Aside from the JAVA applet, the data  
may be of execution type via standard API in a data  
terminal. Files of the execution type via the standard  
5 API are not limited to operations in the browser. In  
execution type on the PC unit 170, it is possible to  
provide the convenience that the communication is  
obtainable with the sole click operation of the icon.

In the telephone set shown in Fig. 4, an encyphering  
10 unit 108 is provided for sending out the caller identifier  
and telephone number. With the encyphering unit 180, it  
is possible that the opposite side of communication or  
the third party is unable to understand or recognize the  
sent-out data. It is also possible to prohibit re-uses  
15 of the transmission data by encyphering. It is further  
possible to permit one time right to be maintained until  
the establishment of communication, so that  
re-transmission is possible at the time of failure of  
communication.

20 In this embodiment, the terminal of internet  
service telephone communication is constituted by a  
telephone set and a personal computer. The terminal may  
also be IVR (Interactive Voice Response unit),  
facsimile data server, voice recognition dialer or voice  
25 mail.

In an embodiment with an IVR, a voice message such  
as "where to connect ?" is given upon reception of a call  
arrival notification. By giving a command to such a







What is claimed is:

1. A telephone communication system comprising a public network, an internet service provider network and a plurality of telephone sets accommodated in the public network, wherein when a calling telephone set as an internet service provider network subscriber provides connection point data for making internet service telephone communication to a called telephone set via a public network, the called telephone set receiving the connection point data connects itself to an internet service provider network according to the connection point data, and then the calling telephone set connects itself to the internet service provider network.

2. A telephone communication system comprising a public network, an internet service provider network and a plurality of telephone sets accommodated in the public network, wherein when a calling telephone set as an internet service provider network subscriber provides connection point data for making internet service telephone communication to a called telephone set via a public network, the called telephone set receiving the connection point data connects itself to an internet service provider network according to the connection point data, and then the calling telephone set connects itself to the internet service provider network, the connection point data including at least an IP address in the internet service provider network and the telephone number of a

point to be connected to the internet service provider network.

3. A telephone communication system comprising a public network, an internet service provider network and a plurality of telephone sets accommodated in the public network, wherein when a calling telephone set as an internet service provider network subscriber provides connection point data for making internet service telephone communication to a called telephone set via a public network, the called telephone set receiving the connection point data connects itself to an internet service provider network according to the connection point data, and then the calling telephone set connects itself to the internet service provider network, the connection point data including at least an IP address in the internet service provider network and the telephone number of a point to be connected to the internet service provider network, a push-button telephone set having various function keys being provided between each of the plurality of telephone sets and the public network with a function of sending out a call from each telephone set.

4. The telephone communication system according to one of claims 1 to 3, wherein the functions of each telephone set are executed on a personal computer.

5. The telephone communication system according to

one of claims 1 to 3, wherein the functions of each telephone set are executed with an IVR (interactive voice response unit or a facsimile data server or a voice recognition dialer or a voice mail.

6. The telephone set according to one of claims 1-3, which comprises:

a ten-key unit having dial keys and a function key for indicating an internet telephone service;

a display unit for displaying a call arrival notification and results of various processes in the telephone set;

an accumulating unit for storing telephone number data and access identifier data of internet connection points to be connected by the calling and called sides;

a voice codec to be started by a command for voice communication in the internet; and

a telephone set control unit for detecting depressed push-buttons in the ten-key unit, obtaining the connection point data from the accumulating unit, sending out dial data and connection point data via the public network, starting the voice codec when the dialed side has been connected to the internet service provider network and, upon arrival of a call, retrieving for the connection point data of the calling side, effecting connection of the own side to the internet service provider network by retrieving and referring to the accumulating unit according to the connection point data and informing the

calling side of the connection.

7. The telephone communication system according to one of claims 1-3, wherein each telephone set further comprises an encryption unit for permitting exchange of connection point data in terms of ciphers.

8. An internet communication method comprising steps of:

in response to provision, by a calling telephone set as an internet service provider network subscriber, of connection point data for making internet service telephone communication to a called telephone set via a public network, the called telephone set receiving the connection point data connects itself to an internet service provider network on the basis of the connection point data, and then the calling telephone set connects itself to the internet service provider network.

9. A n internet communication method comprising steps of:

in response to provision, by a calling telephone set as an internet service provider network subscriber, of connection point data for making internet service telephone communication to a called telephone set via a public network, the called telephone set receiving the connection point data connects itself to an internet service provider network on the basis of the connection

point data, and then the calling telephone set connects itself to the internet service provider network, the connection point data including at least an IP address in the internet service provider network and the telephone number of a point to be connected to the internet service provider network.

10. A n internet communication method comprising steps of:

in response to provision, by a calling telephone set as an internet service provider network subscriber, of connection point data for making internet service telephone communication to a called telephone set via a public network, the called telephone set receiving the connection point data connects itself to an internet service provider network on the basis of the connection point data, and then the calling telephone set connects itself to the internet service provider network, the connection point data including at least an IP address in the internet service provider network and the telephone number of a point to be connected to the internet service provider network, a push-button telephone set having various function keys being provided between each of the plurality of telephone sets and the public network with a function of sending out a call from each telephone set.



FIG.1

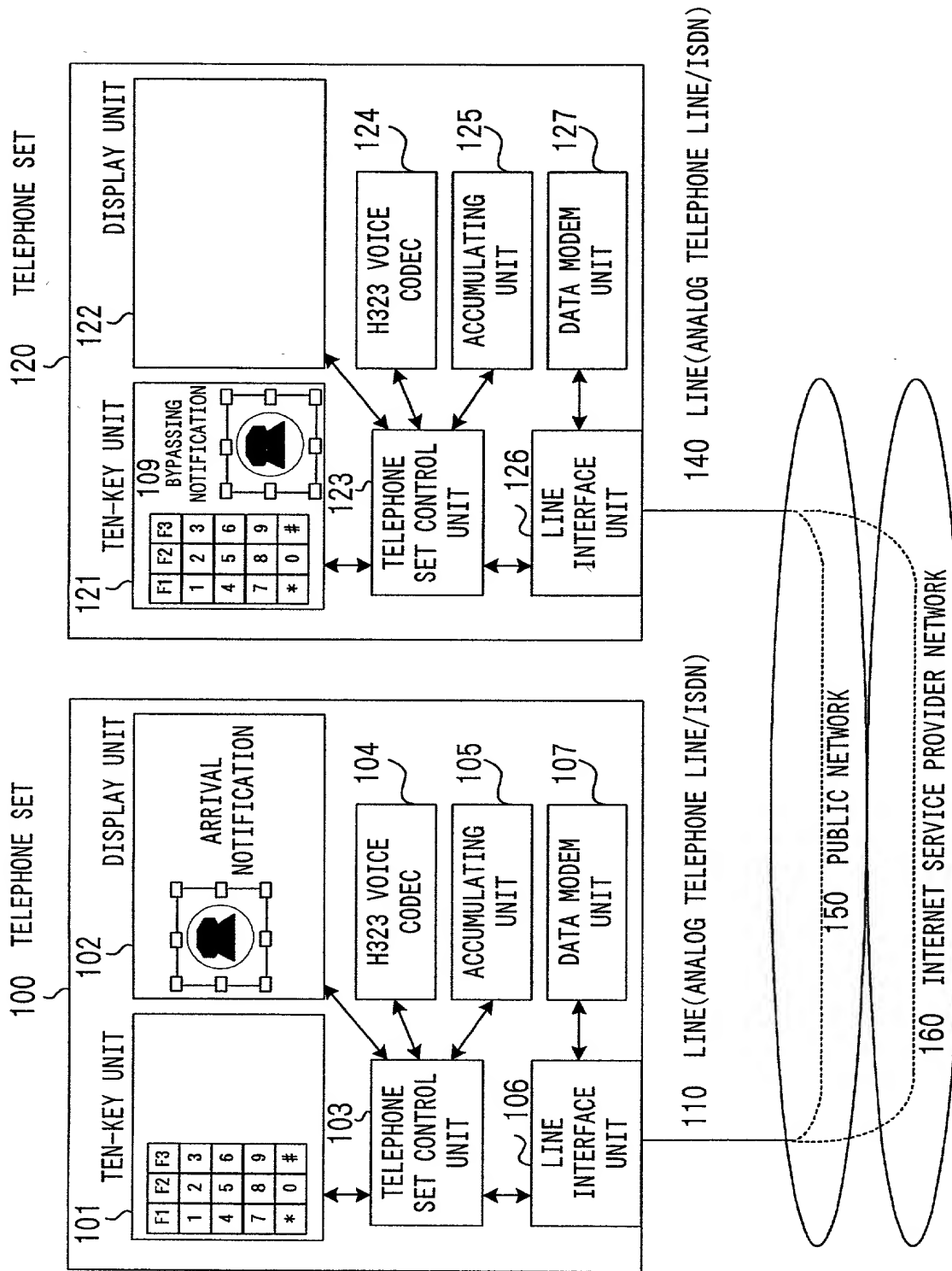




FIG.2

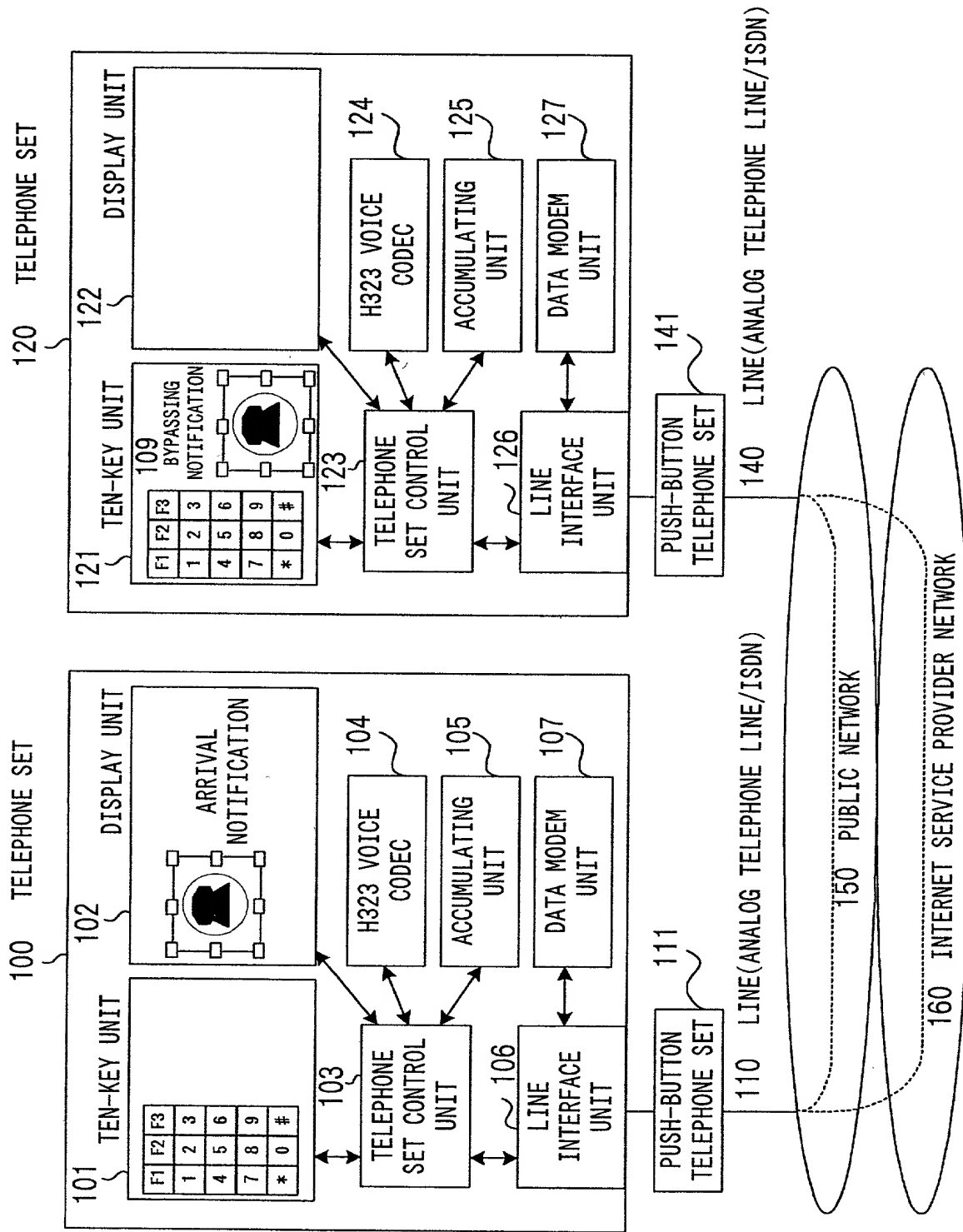
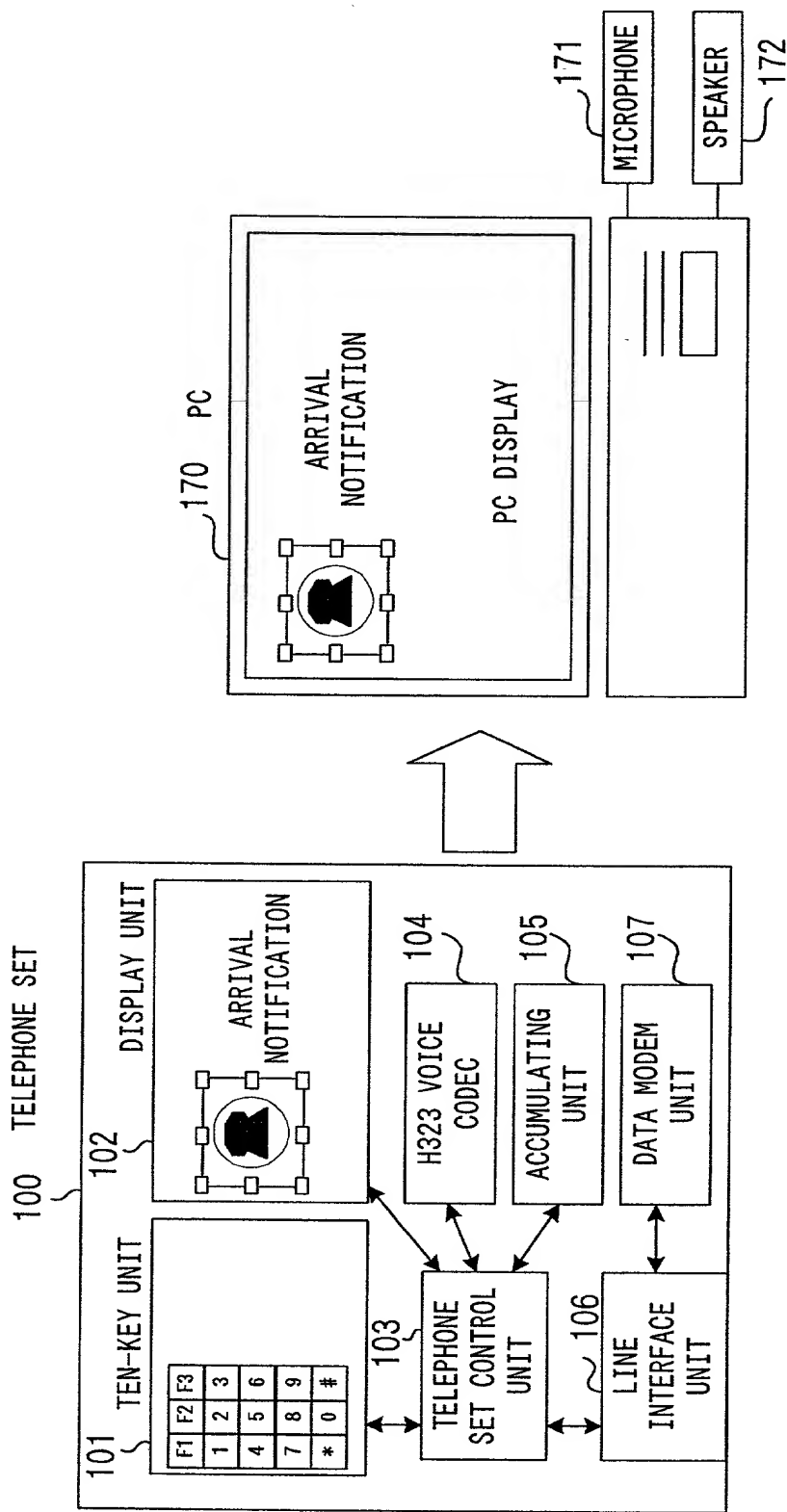


FIG. 3






I hereby appoint as my attorneys, with full powers of substitution and revocation, to prosecute this application and transact all business in the Patent and Trademark Office connected therewith: Stephen A. Bent, Reg. No. 29,768; David A. Blumenthal, Reg. No. 26,257; John J. Feldhaus, Reg. No. 28,822; Donald D. Jeffery, Reg. No. 19,980; Eugene M. Lee, Reg. No. 32,039; Peter G. Mack, Reg. No. 26,001; Brian J. McNamara, Reg. No. 32,789; Sybil Meloy, Reg. No. 22,749; George E. Quillin, Reg. No. 32,792; Colin G. Sandercock, Reg. No. 31,298; Bernhard D. Saxe, Reg. No. 28,665; Charles F. Schill, Reg. No. 27,590; Richard L. Schwaab, Reg. No. 25,479; Arthur Schwartz, Reg. No. 22,115; Harold C. Wegner, Reg. No. 25,258.

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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

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